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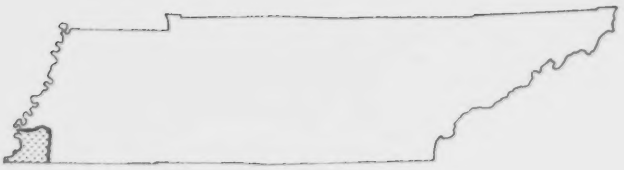
FLOOD INSURANCE STUDY

SHELBY COUNTY, TENNESSEE

UNINCORPORATED AREAS
VOLUME 1 OF 2



REVISED

JANUARY 17, 1990

Federal Emergency Management Agency

COMMUNITY NUMBER - 470214

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

This publication incorporates revisions to the original Flood Insurance Study. These revisions are presented in Section 9.0.

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Flood Insurance Rate Map

FLOOD INSURANCE STUDY
SHELBY COUNTY, TENNESSEE
UNINCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the unincorporated areas of Shelby County, Tennessee, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study will be used to convert the unincorporated areas of Shelby County to the regular program of flood insurance by the Federal Emergency Management Agency (FEMA). Local and regional planners will use this study in their efforts to promote sound flood plain management.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than those on which these Federally-supported studies are based. These criteria take precedence over the minimum Federal criteria for purposes of regulating development in the flood plain, as set forth in the Code of Federal Regulations at 44 CFR, 60.3 (d). In such cases, however, it shall be understood that the state (or other jurisdictional agency) shall be able to explain these requirements and criteria.

1.2 Authority and Acknowledgments

The source of authority for this Flood Insurance Study is the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by the U.S. Army Corps of Engineers Memphis District for the Federal Emergency Management Agency, under Inter-Agency Agreement (IAA)-H-7-76, Project Order No. 12. This work, which was completed in August 1980, covered all significant flooding sources affecting the unincorporated areas of Shelby County, Tennessee.

1.3 Coordination

Community base map selection and the identification of streams requiring detailed study were done in a meeting attended by personnel of the U.S. Army Corps of Engineers (COE), FEMA and Shelby County in March 1975. A public notice announcing the intent to perform a flood elevation study was published in "The Commercial Appeal" on the 8th, 15th and 22nd of April 1976. This notice asked the public to bring any relevant facts and

technical data concerning local flood hazards to Shelby County's Chief Executive Officer. Letters were sent to various state, federal, and private agencies informing them of the forthcoming insurance study and requesting any pertinent information available. Field interviews with local residents were conducted to help define flood hazard areas in Shelby County, and validate theoretical analysis. On September 2, 1981 the results of the work performed by the COE were presented to FEMA and Shelby County officials at a final coordination meeting. This FIS was acceptable to the community.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the unincorporated areas of Shelby County, Tennessee. The area of study is shown on the Vicinity Map (Figure 1).

The entire area was studied in detail and includes the Mississippi River and the following streams and their principle tributaries: Loosahatchie River, Wolf River, and Nonconnah Creek.

The areas studied by detailed methods were selected with priority given to all known flood hazard areas, and areas of projected development or proposed construction for the next five years, through August 1985.

2.2 Community Description

Shelby County is located in the extreme southwest corner of Tennessee with a total land area of 783 square miles. It now has a 1979 estimated population of 796,000, including the City of Memphis. Shelby County's rural population in 1960 was 42,238 and in 1970 the population was 76,455 which illustrates a rapid trend in Shelby County towards urbanization.

Memphis, the largest city in Shelby County, has 282 square miles inside its 1979 city limits and an estimated population of 692,000. The City of Memphis is also the county seat.

The Mississippi River, with a drainage area of 928,700 square miles at Memphis, flows along the western boundary of Shelby County. The Wolf and Loosahatchie Rivers, as well as Nonconnah Creek, drain into the Mississippi River in West Shelby County. These three basins provide all the drainage for Shelby County.

The Wolf River rises near the western edge of Tippah County, Mississippi and flows westerly across Benton County, Mississippi and Fayette and Shelby Counties, Tennessee and through the City of Memphis. East of Memphis, in the vicinity of the City of Germantown and the City of Collierville, rapid urban development has increased the flood damage potential. The Wolf River drainage basin contains about 824 square miles with about 210 square miles in Shelby County. Major tributaries of the Wolf River in Shelby County covered in this study are shown on Table 1.

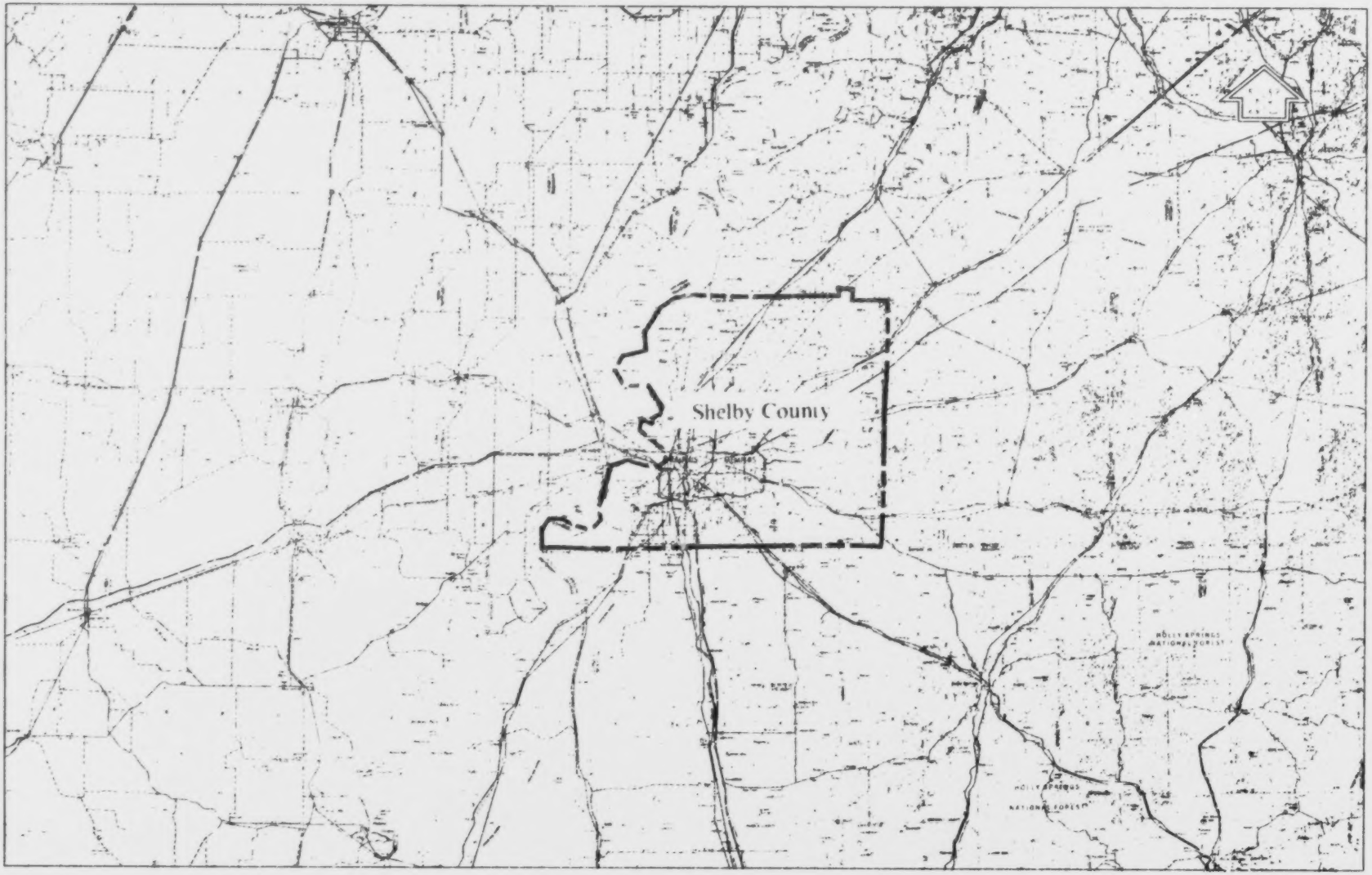

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

APPROXIMATE SCALE

12 0 12 24 36 MILES

VICINITY MAP

The Loosahatchie River rises in the steep hills of Hardeman County, Tennessee, and flows westerly across Fayette and Shelby Counties and enters the Mississippi River at the northern edge of the Memphis City Limits. The basin has a drainage area of 740 square miles with approximately 328 square miles in Shelby County. Major tributaries of the Loosahatchie River in Shelby County included in this study are shown on Table 1.

Nonconnah Creek rises in Northern Mississippi and flows westerly through the City of Memphis into McKellar Lake, an old channel of the Mississippi River. The Nonconnah Creek watershed has an area of approximately 183 square miles of which about 148 square miles is in Shelby County. The main tributaries of Nonconnah Creek in Shelby County are shown on Table 1.

The average annual temperature in Shelby County is 61 degrees F. The average annual rainfall over the area is about 50 inches with January being the wettest month. Generally, winter rains are of several days duration and cover large areas, but ordinarily the intensity is not severe. Summer rains are usually of the thunderstorm type with high intensities over small areas.

2.3 Principal Flood Problems

The history of flooding on the rivers and streams within Shelby County indicates that flooding may occur during any season of the year. The majority of floods, however, have occurred during the winter and spring. Runoff from intense rainfall is the principle cause of flooding in Shelby County. However, as the Loosahatchie River, Wolf River, and Nonconnah Creek all flow into the Mississippi River along the western border of Shelby County, flooding often occurs along the lower reaches of these streams due to backwater effects resulting from high stages on the Mississippi River. This backwater flooding along Wolf River and Nonconnah Creek is mostly confined within the City of Memphis.

The reaches of the Loosahatchie River, Wolf River, and Nonconnah Creek; as covered in this report, have a history of frequent flooooding. Published records indicate that major flooding has occurred in 1934, 1935, 1949, 1956, and 1970. The flood of January 1935 is the largest known to have occurred on the Loosahatchie and Wolf Rivers. The 100-year flood profile generally approximates the 1934 flood with the 1935 flood, slightly in excess of the 100-year frequency. No published records are available on the history of flooding along the tributaries of these streams. However, in addition to the major floods listed above, the tributaries are subject to flash flooding from local high intensity thunderstorms due to their relatively small sizes.

2.4 Flood Protection Measures

Reaches of the channels of the Wolf River, Loosahatchie River, and Nonconnah Creek have been straightened, enlarged and cleaned out by local interests through various projects since the early 1900's. Numerous tributaries of these three streams have been cleaned out and channelized by various governmental agencies and private developers as increasing urbanization has taken place throughout the county. All known improvements have been incorporated into the analyses performed for this study.

Project levees and floodwalls in the City of Memphis and Shelby County area have been constructed to provide protection in excess of the 100-year frequency flood on the Mississippi River. The only flood problems that exist due to flooding from the Mississippi River are in the low lying, unprotected areas of Shelby County.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude which are expected to be equalled or exceeded once on the average during any 10-, 50-, 100-, and 500-year period (recurrence intervals), have been selected as having special significance for flood plain management and for flood insurance premium rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10, 2, 1, and 0.2 percent chance, respectively, of being equalled or exceeded during any year. Although the recurrence interval represents the long term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than one year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (one percent chance of annual occurrence) in any 50 year period is about 40 percent (four in 10), and for any 90 year period, the risk increases to about 60 percent (six in 10). The analyses reported here reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for floods of the selected recurrence intervals for each flooding source studied in detail in the community.

Frequency-discharges were developed for each basin using the COE HEC-1 computer program (Reference 1). The basins were divided into sub-areas, and synthetic unit hydrographs were developed for each sub-area using Snyder's Method as described in EM 1110-2-1405 (Reference 2).

Rainfall frequency values were determined from National Weather Services Technical Paper No. 40 (Reference 3) for the 10-, 50-, and 100-year frequency rainfalls. A corresponding 500-year frequency rainfall was determined by extrapolating the 10-, 50-, and 100-year frequency rainfall depths for given durations. Rainfall losses for the Nonconnah Creek and the Loosahatchie River basins were based on initial and uniform loss rates. Rainfall losses for the Wolf River Basin were based on the Soil Conservation Service land use and runoff curves. The rainfall excess was applied to each unit hydrograph to obtain the flood hydrograph for each sub-area. The flood hydrographs were combined and routed using the Modified Puls Method. On some streams the discharges are attenuated in the downstream direction due to storage in the overbanks.

No discharges were computed during this study for the Mississippi River. Discharges developed from previous unpublished studies of the Mississippi River by the COE, Memphis District, were used for the 10-, 50-, and 100-year floods.

The 500-year frequency flood discharges and corresponding flood elevations on the Mississippi River within the study area were not determined due to the difficulty in analyzing a specified flood frequency of this magnitude in such a large and unique drainage basin. Because of the unusually large drainage area involved (932,800 square miles at the City of Memphis) and the relatively short period of record under regulated conditions, it is reasonable to assume that all critical combinations of storms and runoff events have not been observed. The sequence and severity of meteorological and hydrological events which could reasonably be expected to occur and cause a major flood, such as the 500-year frequency flood, would involve the consideration of storm transpositions, storm adjustments, seasonal variations, storm mechanics, and the determination of the feasibility of the occurrence of the events, as well as the determination of flows under natural conditions and as regulated by reservoirs at key stations on the tributaries and on the main Mississippi River. In place of the 500-year storm, the project design flood has been used to represent a storm of larger magnitude than the 100-year flood.

The project design flood is a hypothetical flood developed to design flood control structures on the Mississippi River. Frequency has not been assigned to the project flood; however, it is well in excess of the 100-year flood.

The peak discharge-drainage area relationships for various locations in the study area are shown in Table 1, "Summary of Discharges."

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
BEAR CREEK					
Mouth	7.5	3,521	4,650	5,134	6,200
BEAR CREEK LATERAL					
West Union Road	0.4	1,357	1,749	1,918	2,400
BEAVER CREEK					
Mouth	149.0	20,900	34,700	39,300	52,800
WEST BEAVER CREEK					
Mouth	27.8	8,204	11,258	12,927	16,596
EAST BEAVER CREEK					
Mouth	65.4	7,500	11,400	13,700	19,000
BIG CREEK DRAINAGE CANAL					
Mouth	154.0	22,309	28,693	32,062	38,800
Above Jakes Creek	119.5	16,121	20,167	22,285	27,000
Above North Fork Creek	70.0	11,343	15,429	17,678	22,200
Above Crooked Creek	33.0	7,484	9,616	10,617	12,800
BIG CREEK LATERAL A					
Mouth	4.1	1,670	2,173	2,387	2,780
CASPER CREEK					
Mouth	5.5	1,816	2,862	3,265	4,400
CROOKED CREEK DRAINAGE CANAL					
Mouth	18.9	3,929	5,787	6,634	8,600
CROOKED CREEK LATERAL A					
Mouth	2.7	716	929	1,021	1,200
CROOKED CREEK LATERAL B					
Mouth	2.5	1,170	1,660	1,925	2,500
CYPRESS CREEK					
Mouth	62.5	14,600	20,100	22,500	28,200
FLETCHER CREEK					
I-40	8.0	4,063	5,103	5,565	6,495
U.S. Highway 64	0.7	713	951	1,046	1,239

TABLE 1 - SUMMARY OF DISCHARGES - cont.

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
FLETCHER CREEK LATERAL B					
Whitten Road	4.1	1,145	1,525	1,680	1,960
Louisville & Nashville Railroad	0.9	991	1,292	1,411	1,653
FLETCHER CREEK LATERAL BB					
County Road	1.0	705	970	1,080	1,290
FLETCHER CREEK TRIBUTARY A					
U.S. Highway 64	9.3	3,151	4,052	4,415	5,172
FLETCHER CREEK TRIBUTARY C					
U.S. Highway 70	1.2	1,075	1,380	1,500	1,745
FLETCHER CREEK TRIBUTARY D					
U.S. Highway 70	0.5	470	605	655	760
GRAYS CREEK					
Raleigh-LaGrange Road	37.1	5,755	7,325	7,955	9,230
Macon Road	31.7	6,510	8,195	8,880	10,300
Louisville & Nashville Railroad	28.4	6,780	8,540	9,220	10,670
James Road	8.2	4,590	5,870	6,335	7,390
JAKES CREEK					
Mouth	8.9	3,884	4,824	5,248	6,200
JOHNS CREEK					
Winchester Road	22.1	9,901	11,849	12,763	14,612
Shelby Drive	5.4	2,298	2,840	3,160	3,909
JOHNS CREEK LATERAL A					
Mouth	9.9	5,250	6,478	6,954	8,057
JOHNS CREEK LATERAL AA					
Mouth	1.9	1,401	1,843	2,070	2,628
JOHNS CREEK LATERAL AB					
Mouth	1.6	1,129	1,485	1,668	2,117
JOHNS CREEK LATERAL B					
St. Louis-San Francisco Railway	2.6	1,547	1,990	2,217	2,744
LOOSAHATCHIE RIVER DRAINAGE CANAL					
Mouth -	742.0	33,800	51,500	59,500	78,000
Above Big Creek	570.0	32,900	47,700	54,300	70,000
Above Cypress Creek	423.0	35,000	52,000	59,900	78,900
Above Beaver Creek	265.0	33,600	47,200	52,800	66,200

TABLE 1 - SUMMARY OF DISCHARGES - cont.

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
MARYS CREEK					
Mouth	16.0	2,185	2,839	3,104	3,649
Collierville-Arlington Road	4.2	1,692	2,214	2,426	2,851
MISSISSIPPI RIVER	928,700	1.44×10^6	1.81×10^6	1.96×10^6	------
NONCONNAH CREEK					
Mouth of Howard Road Outfall	80.9	16,820	19,925	21,431	25,303
Winchester Road	68.8	13,547	15,519	17,249	21,821
Mouth of Lateral B	46.1	12,038	15,493	17,216	21,709
Quinn Road	0.8	1,160	1,492	1,664	2,072
NONCONNAH CREEK LATERAL B					
Mouth	35.9	9,792	12,572	13,992	17,577
NONCONNAH CREEK LATERAL BA					
Mouth	13.2	5,486	7,690	8,640	10,931
NONCONNAH CREEK LATERAL J					
Mouth	1.1	1,056	1,390	1,561	1,852
NORTH FORK CREEK					
U.S. Highway 51	10.5	2,615	3,667	4,205	5,325
NORTH FORK CREEK LATERAL A					
Cross Section A	3.4	2,106	2,668	2,909	3,400
ROYSTER CREEK					
Mouth	18.2	7,122	9,172	10,016	12,200
TEN MILE CREEK					
Getwell Road	1.2	1,430	1,862	2,064	2,560
WOLF RIVER					
Germantown Road	700	24,320	36,430	41,310	53,940
Houston Levee Road	624	23,478	35,076	39,855	52,537
Collierville-Arlington Road	600	23,892	35,705	40,594	53,927
WOLF RIVER LATERAL E					
Dogwood Road	2.4	1,350	1,690	1,820	2,100
WOLF RIVER LATERAL EA					
Mouth	0.5	610	800	870	1,020

TABLE 1 - SUMMARY OF DISCHARGES - cont.

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
WOLF RIVER LATERAL F					
Cross Section A	1.3	1,181	1,542	1,687	1,955
WOLF RIVER LATERAL H					
Cross Section A	4.3	1,950	2,560	2,800	3,300
WOLF RIVER LATERAL I					
Just upstream of mouth	3.4	730	960	1,050	1,240
WOLF RIVER LATERAL IA					
Shelton Road	1.6	900	1,109	1,171	1,306
WOLF RIVER LATERAL J					
Shelton Road	2.0	1,275	1,685	1,843	2,176
WOLF RIVER LATERAL K					
Cross Section A	0.7	1,329	1,697	1,837	2,135
WOLF RIVER LATERAL L					
Fletcher Road	3.9	1,641	2,119	2,315	2,717
U.S. Highway 72	1.7	1,798	2,438	2,698	3,220

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of the flooding sources studied in detail in Shelby County were carried out to provide estimates of the elevations of floods of the selected recurrence intervals along each of the flood sources.

Aerial photographs of Shelby County were flown in January 1976. Cross section data and spot elevations within the flood plains were obtained by field surveys in June 1976 and September 1977.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). The location and length of the cross sections are shown on the Flood Boundary and Floodway Map (Exhibit 3).

Manning's roughness coefficients were estimated by field inspection and ranged from 0.035 to 0.090 for earth channels and from 0.050 to 0.120 for overbank areas.

Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals (Exhibit 1). Water-surface profiles were developed using the computer program HEC-2, "Water-Surface Profiles" (Reference 4). This program uses the backwater standard step method for natural channels and contains elaborate routines for evaluating head losses at bridges and culverts. Starting water-surface elevations were obtained from concurrent studies prepared by the COE and the Soil Conservation Service.

Water-surface profiles for the Mississippi River were based on profiles developed by the COE (unpublished data) using the Mississippi River Basin Model and stagefrequency curves derived for each stream gaging station.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD), formerly referred to as Sea Level Datum of 1929. Elevation reference marks used in this study are shown and described on the maps.

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study includes a flood boundary map designed to assist communities in developing sound flood plain management measures.

4.1 Flood Boundaries

In order to provide a national standard without regional discrimination, the 100-year flood has been adopted by FEMA as the base flood for purposes of flood plain management measures. The 500-year flood is employed to indicate additional areas of flood risk in the community except for the Mississippi River. For each stream studied in detail, the boundaries of the 100- and the 500-year floods have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using a topographic map at a scale of 1:12,000 with a contour interval of 10 feet. This map was developed using 1:24,000 USGS quadrangle maps with a contour interval of 10 feet. These contours were adjusted and added where necessary to obtain agreement with the field surveyed cross sections and spot elevations.

Small areas within the flood boundaries may lie above the flood elevations and therefore, not be subject to flooding; owing to limitations of the map scale and/or topographical data such areas are not always shown. Also, along the outer limit of the flood boundaries, delineation of the flood outlines may be in slight error due to the accuracy of the topographic data. Where the 500-year and 100- flood boundaries coincide, only the 100-year boundary is shown.

4.2 Floodways

Encroachment on flood plains, such as artificial fill, reduces the flood-carrying capacity, increases the flood heights of streams, and increases flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard. For purposes

of the National Flood Insurance Program, the concept of a floodway is used as a tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment in order that the 100-year flood may be carried without substantial increases in flood heights. Minimum standards of FEMA limit such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this report are presented to local agencies as minimum standards that can be adopted or that can be used as a basis for additional studies.

The floodways presented in this study were computed on the basis of equal conveyance reduction from each side of the flood plain. The results of these computations are shown in Table 2.

As shown on the Flood Boundary and Floodway Map (Exhibit 3), the floodway widths and floodway boundaries were determined at cross sections; between cross sections the boundaries were interpolated. In cases where the floodway boundaries and 100-year boundaries coincide only the floodway boundary is shown.

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Bear Creek								
A	0.06	60	680	7.6	250.0	235.2[2]	236.0[2]	0.8
B	0.70	70	773	6.6	252.8	252.8	253.6	0.8
C	1.11	200	1,547	3.3	261.4	261.4	261.5	0.1
D	1.22	1,060	2,754	1.7	263.2	263.2	263.3	0.1
E	1.63	550	2,210	2.1	265.3	265.3	265.7	0.4
F[3]	1.82	1,450	2,779	1.6	267.8	267.8	268.2	0.4
G	2.29	200	911	3.4	274.6	274.6	275.1	0.5
H	3.40	770	2,132	1.5	285.3	285.3	285.6	0.3
I	4.19	600	1,960	1.5	297.1	297.1	297.2	0.1
J	4.70	120	821	3.7	308.9	308.9	309.3	0.4
Bear Creek Lateral								
A[3]	0.13	1,450	2,779	1.6	267.8	267.8	268.1	0.3
B	0.62	340	1,836	1.0	275.6	275.6	276.1	0.5
C	1.54	150	437	2.8	291.8	291.8	292.8	1.0

[1]Miles Above Mouth
[2]Elevations computed without consideration of backwater effects
[3]Common floodplain for both Bear Creek and Bear Creek Lateral

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

13 **BEAR CREEK-BEAR CREEK LATERAL**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Beaver Creek								
A	0.96	5,040	44,763	0.9	270.8	270.8	271.8	1.0
B	1.35	4,350	30,807	1.3	271.5	271.5	272.5	1.0
C	2.30	4,060	25,954	1.5	275.2	275.2	276.2	1.0
D	3.50	4,260	30,985	1.2	278.9	278.9	279.9	1.0
E	4.15	3,190	23,008	1.6	281.0	281.0	282.0	1.0

[1]Miles above confluence with Loosahatchie River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

BEAVER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
West Beaver Creek								
A	1.12	1,710	8,043	1.6	286.4	286.4	286.4	0.0
B	1.61	1,190	7,533	1.7	288.7	288.7	289.5	0.8
C	2.39	70	1,281	10.1	296.2	296.2	297.2	1.0
D	2.82	2,030	12,259	1.1	301.2	301.2	302.1	0.9
E	2.92	2,170	16,891	0.8	302.2	302.2	302.8	0.6
F	3.84	1,570	7,163	1.7	306.5	306.5	307.5	1.0
G	4.57	1,980	11,213	1.1	314.4	314.4	315.4	1.0
H	5.52	910	5,105	2.3	320.8	320.8	320.8	0.0
I	5.82	60	853	10.0	325.3	325.3	326.2	0.9

[1]Miles above confluence with Beaver Creek

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

WEST BEAVER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT)	SECTION AREA (SQ FT)	MEAN VELOCITY (F P S)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Big Creek Drainage Canal								
A	0.03	2,230	15,988	2.0	234.0	222.5[2]	223.5[2]	1.0
B	1.04	1,030	8,067	4.0	234.0	228.1[2]	228.7[2]	0.6
C	2.76	1,060	11,472	2.8	236.7	236.7	237.7	1.0
D	2.84	1,540	18,516	1.7	237.6	237.6	238.6	1.0
E	3.72	1,970	15,116	2.1	239.9	239.9	240.9	1.0
F	4.44	690	5,409	5.7	241.0	241.0	242.0	1.0
G	6.00	190	4,304	7.0	247.4	247.4	248.4	1.0
H	7.22	940	6,530	3.4	252.5	252.5	253.5	1.0
I	7.79	530	5,179	4.3	254.0	254.0	255.0	1.0
J[4]	8.45	180	2,407	8.3	257.4	257.4	258.4	1.0
K	8.90	1435/300[3]	15,734	1.3	259.0	259.0	259.8	0.8
L[4]	9.38	167	3,363	5.9	259.2	259.2	260.2	1.0
M[4]	9.57	175	3,315	6.0	260.9	260.9	261.7	0.8
N	10.00	2033/1700[3]	1,473	1.5	262.7	262.7	263.5	0.8
O	10.62	1143/880[3]	5,307	3.5	264.0	264.0	264.9	0.9
P	11.32	1729/0[3]	8,767	2.1	267.1	267.1	268.1	1.0
Q	11.80	1690/350[3]	6,625	2.8	269.0	269.0	270.0	1.0
R	12.46	2,662	11,131	1.7	272.9	272.9	273.9	1.0
S	13.03	4,370	12,715	1.3	275.3	275.3	276.3	1.0
T	13.59	4,460	22,287	0.7	279.0	279.0	279.0	0.0
U	14.09	5,090	5,272	3.1	281.7	281.7	281.7	0.0
V	15.06	2,390	10,248	1.0	287.4	287.4	287.9	0.5

[1]Miles above mouth
[2]Elevations computed without consideration of backwater effects.
[3]Total width/width within county limits.
[4]Cross section not shown on maps; lies outside county limits.

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY
Federal Insurance Administration

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

BIG CREEK DRAINAGE CANAL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Big Creek Drainage Canal (cont.)								
W	15.49	1,060	3,016	3.5	288.6	288.6	289.4	0.8
X	15.87	2,260	10,672	1.0	292.9	292.9	293.9	1.0
Y	16.45	1,370	2,828	3.8	295.0	295.0	295.5	0.5
Z	17.00	2,500	7,239	1.5	300.4	300.4	301.4	1.0
AA	17.48	160	1,642	5.5	303.3	303.3	304.3	1.0
BB	18.45	137	1,804	5.2	312.4	312.4	313.1	0.7

[1] Miles above mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

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BIG CREEK DRAINAGE CANAL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Big Creek Lateral A								
A	0.46	52	351	6.8	240.1	235.5[2]	235.5[2]	0.0
B	1.07	334	1,311	1.8	252.0	252.0	252.3	0.3
C	1.50	133	768	2.9	255.5	255.5	256.2	0.7

[1]Miles Above Mouth
[2]Elevations computed without consideration of backwater effects

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

BIG CREEK LATERAL A

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Casper Creek								
A	0.09	60	445	7.4	273.9	272.0[2]	273.0[2]	1.0
B	0.47	560	2,140	1.5	276.3	276.3	277.1	0.8
C	1.05	70	495	9.1	283.8	283.8	283.8	0.0
D	1.21	910	3,460	1.3	284.7	284.7	284.9	0.2
E	1.94	465	1,865	1.5	291.2	291.2	292.2	1.0
F	2.79	550	1,515	1.6	302.8	302.8	303.2	0.4
G	3.12	535	2,045	1.2	309.1	309.1	309.1	0.0
H	3.70	235	580	2.7	319.1	319.1	319.1	0.0

[1]Miles Above Mouth
[2]Elevations computed without consideration of backwater effects

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

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CASPER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Crooked Creek Drainage Canal								
A	1.31	3,280	17,156	0.4	291.9	291.9	292.1	0.2
B	2.64	3,450	6,197	1.0	300.0	300.0	300.8	0.8
C	3.37	2,970	5,526	1.0	304.3	304.3	304.5	0.2
D	5.13	1,040	2,371	0.7	320.8	320.8	320.8	0.0
E	6.16	215	903	1.5	341.5	341.5	342.5	1.0
F	6.69	76	374	3.5	355.9	355.9	356.4	0.5
Crooked Creek Lateral A								
A	0.76	440	1,649	0.6	313.5	313.5	314.5	1.0
B	1.45	360	337	1.5	322.0	322.0	322.0	0.0
C	1.66	330	216	2.4	324.2	324.2	324.2	0.0
Crooked Creek Lateral B								
A	0.78	1,670	2,173	0.9	318.6	318.6	318.8	0.2
B	1.81	1,130	1,982	1.5	338.0	338.0	338.0	0.0
C	2.10	500	660	4.4	340.1	340.1	340.1	0.0

[1]Miles Above Mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

CROOKED CREEK DRAINAGE CANAL—CROOKED CREEK LATERAL A—CROOKED CREEK LATERAL B

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Cypress Creek								
A	0.93	3,790	35,036	0.6	264.8	264.8	265.8	1.0
B	1.40	2,740/970[2]	22,205	1.0	266.5	266.5	267.5	1.0
C	1.76	2,350/600[2]	18,410	1.2	267.3	267.3	268.3	1.0
D	3.17	2,780	17,259	1.2	273.3	273.3	274.0	0.7
E	3.91	1,740	13,139	1.6	277.2	277.2	278.1	0.9
F	5.18	2,010	12,479	1.7	282.5	282.5	283.5	1.0
G	6.07	2,150	16,103	1.3	289.4	289.4	290.4	1.0
H	6.84	920/400[2]	9,495	2.3	293.0	293.0	294.0	1.0

[1]Miles Above confluence with Looschatchie River
[2]Total width/width within county limits

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

CYPRESS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Fletcher Creek								
A	3.81	92	1,350	6.8	259.8	259.8	260.3	0.5
B	5.29	80	576	8.4	274.7	274.7	275.6	0.9
C	5.72	80	670	7.2	279.3	279.3	280.0	0.7
D	5.88	90	842	5.6	281.1	281.1	281.8	0.7
E	5.91	200	1,950	2.9	282.3	282.3	282.6	0.3
F	6.17	80	669	8.3	284.5	284.5	285.2	0.7
G	6.79	90	786	7.0	294.5	294.5	295.1	0.6
H[2]	7.27	137	1,097	4.7	296.5	296.5	296.5	0.0
I[2]	7.93	77	427	7.1	303.8	303.8	303.8	0.0
J[2]	8.39	81	456	6.7	313.2	313.2	313.2	0.0
K	8.68	240	517	2.5	323.5	323.5	324.5	1.0
L	9.03	190	540	2.4	328.5	328.5	329.3	0.8
M	9.19	32	260	4.9	333.3	333.3	334.2	0.9
N	9.62	50	355	2.8	339.8	339.8	340.6	0.8
O	10.02	16	156	6.3	349.6	349.6	350.1	0.5
P	10.39	171	906	1.1	359.4	359.4	360.3	0.9
Q	10.57	19	129	8.1	362.0	362.0	362.7	0.7

[1]Miles above confluence with Wolf River
[2]100-year flood contained in culvert

REVISED: 9/27/85

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

FLETCHER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Fletcher Creek Lateral B								
A	0.46	60	479	3.5	261.5	261.5	262.3	0.8
B	0.64	580	1,050	1.6	262.9	262.9	263.4	0.5
C	1.28	50	401	5.9	272.1	272.1	273.0	0.9
D	1.39	110	643	3.7	273.8	273.8	274.7	0.9
E	2.01	70	355	6.6	282.2	282.2	283.1	0.9
F	2.13	50	339	7.0	283.6	283.6	284.4	0.8
G	2.78	50	268	5.6	298.4	298.4	298.9	0.5
H	2.98	70	430	3.3	301.7	301.7	302.2	0.5
I	3.66	250	860	0.5	320.3	320.3	320.7	0.4
Fletcher Creek Lateral BB								
A	0.07	29	170	6.3	286.3	286.3	287.3	1.0
B	0.21	71	209	5.2	292.8	292.8	293.6	0.8
C	0.47	45	241	4.5	298.0	298.0	298.9	0.9
D	0.89	199	760	1.1	314.8	314.8	315.4	0.6

[1]Miles above mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

FLETCHER CREEK LATERAL B-FLETCHER CREEK LATERAL BB

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Fletcher Creek Tributary A								
A	0.39	100	600	7.4	269.8	269.8	270.8	1.0
B	0.73	180	800	5.5	272.9	272.9	273.7	0.8
C	0.88	60	516	8.6	273.0	273.0	274.0	1.0
D	1.59	100	615	8.1	277.2	277.2	278.2	1.0
E	2.27	120	750	6.3	290.4	290.4	290.8	0.4
F	3.38	704	2,201	1.4	313.1	313.1	314.0	0.9

[1]Miles above confluence with Fletcher Creek

REVISED: 9/27/85

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

FLETCHER CREEK TRIBUTARY A

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
FLETCHER CREEK TRIBUTARY C								
A	0.44	390	602	2.1	282.0	282.0	282.8	0.8

[1]MILES ABOVE CONFLUENCE WITH FLETCHER CREEK TRIBUTARY A

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

FLETCHER CREEK TRIBUTARY C

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Gray's Creek								
A	0.89	1,650	8,538	1.1	277.3	277.3	278.2	0.9
B	1.68	100	1,108	7.2	279.2	279.2	280.2	1.0
C	1.98	1,730	10,546	0.8	281.0	281.0	281.8	0.8
D	2.97	1,130	4,119	2.2	286.3	286.3	287.2	0.9
E	4.14	150	1,402	6.3	294.1	294.1	295.0	0.9
F	4.17	1,120	5,540	1.6	295.3	295.3	296.0	0.7
G	5.38	925	3,734	2.4	302.1	302.1	303.0	0.9
H	5.88	1,170	7,428	1.2	309.1	309.1	310.1	1.0
I	6.42	1,050	3,288	2.8	310.4	310.4	311.3	0.9
J	6.58	600	3,741	2.5	311.1	311.1	312.1	1.0
K	7.69	450	2,930	2.5	316.6	316.6	317.6	1.0
L	8.73	120	1,590	5.6	322.8	322.8	323.4	0.6
M	9.55	120	1,308	6.8	330.5	330.5	330.9	0.4
N	10.12	160	2,220	2.9	334.2	334.2	334.9	0.7
O	10.79	100	1,285	4.9	338.1	338.1	338.6	0.5
P	11.43	100	1,185	5.0	342.5	342.5	342.8	0.3

[1]Miles above confluence with Wolf River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

GRAY'S CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Jakes Creek								
A	0.28	87	896	5.9	250.0	242.4[2]	243.2[2]	0.8
B	0.73	72	972	5.4	252.5	252.5	252.5	0.0
C	1.50	362	1,589	3.2	259.8	259.8	260.4	0.6
D	2.39	473	2,726	2.1	268.4	268.4	269.3	0.9

[1]Miles above mouth
[2]Elevations computed without consideration of backwater effects.

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

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JAKES CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Johns Creek								
A	2.56	104[2]	1,938	6.59	283.8	283.8	284.6	0.8
B	3.17	131[3]	2,206	5.28	287.6	287.6	288.2	0.6
C	3.67	105	1,485	7.85	291.3	291.3	291.9	0.6
D	4.25	100	1,112	4.43	300.1	300.1	300.8	0.7
E	4.31	82	1,231	4.00	301.0	301.0	302.0	1.0
F	4.64	95	1,033	3.06	306.3	306.3	307.3	1.0
G	4.93	119	1,009	3.13	307.6	307.6	308.5	0.9
H	5.10	64	747	4.23	308.9	308.9	309.7	0.8
I	5.96	270	1,230	2.56	316.0	316.0	317.0	1.0
J	6.23	440	1,452	2.17	320.2	320.2	321.2	1.0
K	6.67	39	450	7.00	328.8	328.8	329.8	1.0
L	6.92	502	3,550	0.89	331.3	331.3	332.3	1.0
M	7.26	661	1,831	1.72	336.5	336.5	337.4	0.9

[1]MILES ABOVE MOUTH
[2]THIS WIDTH IS WITHIN CITY OF MEMPHIS
[3]THIS WIDTH EXTENDS WITHIN CITY OF MEMPHIS

REVISED: 9/27/86

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

JOHNS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
JOHNS CREEK LATERAL A								
A	0.10	76	1211	5.7	298.5	298.5	298.5	0.0
B	0.81	82	1222	5.7	302.0	302.0	302.8	0.8
C	1.04	100	1331	5.2	303.8	303.8	304.8	1.0
D	1.28	222	3146	2.2	305.0	305.0	305.8	0.8
E	1.60	79	659	7.9	305.6	305.6	306.3	0.7
F	2.12	65	950	5.5	315.9	315.9	316.9	1.0
G	2.67	61	950	5.5	321.2	321.2	321.8	0.6

[1]MILES ABOVE MOUNTH

REVISED: 1/17/90

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

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JOHNS CREEK LATERAL A

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
JOHN CREEK LATERAL AA								
A	0.11	48	560	3.7	305.7	305.7	306.4	0.7
B	0.62	120	588	3.5	315.7	315.7	316.3	0.6
C	1.11	218	792	2.6	326.1	326.1	327.1	1.0
D	1.83	165	399	2.6	346.7	346.7	346.9	0.2

[1]MILES ABOVE MOUTH

REVISED: 1/17/90

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

JOHNS CREEK LATERAL AA

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Johns Creek Lateral B								
A	0.20	90	1,014	2.19	306.2	306.2	306.7	0.5
B	0.31	263	1,656	1.34	306.6	306.6	307.5	0.9
C	0.63	50	489	4.54	310.5	310.5	311.5	1.0
D	1.61	305	1,681	1.32	325.1	325.1	326.1	1.0

[1]Miles above mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

JOHNS CREEK LATERAL B

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Loosahatchie River Drainage Canal								
A	0.05	2,470/2320[2]	19,426	3.1	234.0	225.8[3]	226.8[3]	1.0
B	0.87	4,480	47,564	1.3	234.0	227.1[3]	228.1[3]	1.0
C	1.74	2,910	46,849	1.3	234.0	227.7[3]	228.7[3]	1.0
D	2.81	3,830	72,419	0.8	234.0	228.1[3]	229.1[3]	1.0
E	4.01	4,120	65,631	0.9	234.0	228.4[3]	229.4[3]	1.0
F	5.10	970	20,699	2.8	234.0	228.8[3]	229.8[3]	1.0
G	5.39	2,580/1380[2]	45,540	1.3	234.0	229.4[3]	230.4[3]	1.0
H	8.74	2,840	47,558	1.1	234.0	230.6[3]	231.6[3]	1.0
I	9.10	2,640/50[2]	45,224	1.2	234.0	231.0[3]	232.0[3]	1.0
J	10.08	4,210/50[2]	15,090	3.7	234.0	231.5[3]	232.2[3]	0.7
K	10.98	800/360[2]	12,459	4.5	234.0	232.7[3]	233.6[3]	0.9
L	11.13	2,720/1250[2]	37,073	1.5	234.0	233.6[3]	234.4[3]	0.8
M	11.47	4,360/2480[2]	55,202	1.0	234.1	234.1	235.0	0.9
N	12.93	3,640/2450[2]	46,747	1.2	235.7	235.7	236.6	0.9
O	13.33	860/500[2]	12,140	4.6	236.5	236.5	237.4	0.9
P	14.03	4,750	57,224	1.0	237.6	237.6	238.4	0.8
Q	14.86	4,510	51,267	1.1	238.5	238.5	239.3	0.8
R	16.98	4,220	37,373	1.6	242.1	242.1	243.0	0.9
S	17.74	3,980	36,090	1.6	244.5	244.5	245.3	0.8
T	19.02	3,910	37,804	1.6	246.8	246.8	247.7	0.9
U	21.08	5,350	49,584	1.2	251.4	251.4	252.4	1.0

[1]Miles above mouth
[2]Total width/width within county limits
[3]Elevations computed without consideration of backwater effects

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

LOOSAHATCHIE RIVER DRAINAGE CANAL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Loosahatchie River Drainage Canal (cont.)								
V	22.73	860	10,086	5.9	256.8	256.8	257.7	0.9
W	23.52	4,630	48,579	1.2	258.8	258.8	259.6	0.8
X	24.27	4,210	39,657	1.5	260.0	260.0	260.9	0.9
Y	25.62	5,900	40,985	1.5	263.0	263.0	263.9	0.9
Z	26.94	4,370	40,992	1.3	265.8	265.8	266.8	1.0
AA	28.27	5,140	44,038	1.2	267.9	267.9	268.9	1.0
AB	28.60	6,090/6,000[2]	56,934	0.9	268.9	268.9	269.7	0.8

[1]Miles above mouth
[2]Total width/width within corporate limits

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT)	SECTION AREA (SQ FT)	MEAN VELOCITY (FPS)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Marys Creek								
A	0.86	620	578	5.4	280.5	280.5	281.5	1.0
B	0.89	620	726	4.3	281.3	281.3	282.3	1.0
C	2.49	800	1,304	3.3	294.3	294.3	295.0	0.7
D	2.56	1,050	6,377	0.7	294.4	294.4	295.1	0.7
E	3.68	790	2,383	1.8	301.1	301.1	302.1	1.0
F	4.99	520	1,917	2.4	313.9	313.9	314.8	0.9
G	5.02	100	719	6.4	314.4	314.4	315.3	0.9
H	6.14	80	378	6.4	328.3	328.3	329.0	0.7
I	7.44	80	328	2.9	342.9	342.9	343.7	0.8

[1]Miles above confluence with Gray's Creek

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

MARYS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Nonconnah Creek								
A	15.60	713[2]	5,839	3.70	283.4	283.4	284.2	0.8
B	17.34	210[3]	3,576	4.82	291.6	291.6	292.6	1.0
C	18.85	170	3,058	5.65	298.8	298.8	299.8	1.0
D	19.52	1,508	8,174	2.11	302.9	302.9	303.9	1.0
E	20.98	1,620	13,543	1.27	310.7	310.7	311.7	1.0
F	23.23	90	1,053	4.29	321.6	321.6	322.6	1.0
G	24.24	61	543	8.31	330.8	330.8	331.8	1.0
H	26.37	886	3,556	0.87	350.6	350.6	351.5	0.9
I	26.93	540	1,250	1.33	353.5	353.5	353.9	0.4
J	27.37	280	1,317	1.26	361.4	361.4	362.4	1.0

[1]Miles above mouth
[2]Floodway lies outside county limits; not shown on map
[3]Floodway width extends beyond county limits

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

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NONCONNAH CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Nonconnah Creek Lateral B								
A	0.08	138	1,981	7.06	318.4	315.9[2]	316.5[2]	0.6
B	0.43	144	1,132	4.73	321.7	321.7	322.2	0.5
C	1.44	1,626	8,092	1.07	328.6	328.6	329.0	0.4
D	2.10	805	4,246	2.04	331.0	331.0	332.0	1.0

[1]Miles above mouth
[2]Elevations computed without consideration of backwater effects

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

NONCONNAH CREEK LATERAL B

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Nonconnah Creek Lateral BA								
A	0.27	853	4,137	2.09	321.7	321.7	322.2	0.5
B	0.77	1,105	4,319	1.46	323.3	323.3	324.3	1.0
C	1.37	696	3,124	2.02	328.5	328.5	328.9	0.4
D	1.96	1,013	3,103	2.04	332.0	332.0	333.0	1.0

[1]Miles above mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

NONCONNAH CREEK LATERAL BA

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Nonconnah Creek Lateral J								
A	0.51	41	233	6.70	285.8	285.8	285.8	0.0
B	1.03	59	263	4.80	304.8	304.8	305.7	0.9

[1]Miles above mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

NONCONNAH CREEK LATERAL J

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
North Fork Creek								
A[2]	1.26	60	640	10.4	270.0	270.0	270.2	0.2
B[2]	1.51	150	1,141	5.8	274.4	274.4	274.4	0.0
C[2]	1.83	1,780	3,401	1.2	275.8	275.8	275.8	0.0
D	2.03	1,840	2,948	1.4	276.5	276.5	276.5	0.0
E	2.43	1,400	5,443	0.8	281.6	281.6	282.6	1.0
F	2.98	1,040	3,240	1.2	286.5	286.5	287.0	0.5
G	4.10	150	2,444	1.6	302.7	302.7	302.9	0.2
H	4.34	1,130	1,984	1.9	304.0	304.0	304.0	0.0
North Fork Creek Lateral A								
A	0.48	330	1,061	2.7	276.0	272.6[3]	273.6[3]	1.0
B	1.39	1,680	2,516	1.2	288.0	288.0	288.0	0.0
C	2.35	820	1,454	1.4	304.6	304.6	304.8	0.2
D	2.97	200	697	2.1	316.0	316.0	316.0	0.0
E	3.14	520	895	1.6	317.5	317.5	317.6	0.1
F	3.25	200	875	1.6	320.5	320.5	320.9	0.4

[1]Miles above mouth
[2]Cross section not shown on maps or stream profiles; located outside county limits
[3]Elevations computed without consideration of backwater effects

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

 NORTH FORK CREEK - NORTH FORK CREEK LATERAL A

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT)	SECTION AREA (SQ FT)	MEAN VELOCITY (FPS)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Royster Creek								
A	0.06	100	1,180	8.5	255.0	241.9[2]	242.9[2]	1.0
B	0.61	100	922	10.9	255.0	253.6[2]	253.6[2]	0.0
C	0.97	120	1,746	5.7	259.8	259.8	260.8	1.0
D	1.35	100	1,343	7.4	263.9	263.9	264.8	0.9
E	1.81	110	1,604	6.2	269.1	269.1	269.8	0.7
F	2.30	110	1,611	6.0	274.0	274.0	274.7	0.7

[1]Miles above mouth
[2]Elevations computed without consideration of backwater effects

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

ROYSTER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Ten Mile Creek								
A	4.68	134	45	3.2	318.7	318.7	319.7	1.0
B	5.07	31	6.5	4.9	329.0	329.0	330.0	0.1
C	5.70	265	1,139	1.44	339.0	339.0	339.0	0.0

[1]Miles above mouth

REVISED: 9/27/85

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

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TEN MILE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Wolf River								
A	19.42	3,100[2]	21,388	1.9	263.3	263.3	264.2	0.9
B	21.84	2,530	17,419	2.4	272.0	272.0	272.8	0.8
C	23.72	4,000	36,548	1.1	279.2	279.2	280.2	1.0
D	24.68	3,360	29,164	1.4	280.8	280.8	281.8	1.0
E	27.56	4,150	47,237	0.8	287.3	287.3	288.3	1.0
F	30.56	6,050	50,206	0.8	291.0	291.0	292.0	1.0
G	32.22	6,750	63,486	0.6	294.2	294.2	295.2	1.0

[1]Miles above mouth
[2]Floodway width extends beyond county limits

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

WOLF RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT)	SECTION AREA (SQ FT)	MEAN VELOCITY (FPS)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Wolf River Lateral E								
A	0.78	60	370	4.3	274.8	274.8	274.8	0.1
B	1.43	90	516	3.5	280.9	280.9	281.9	1.0
C	2.36	100	392	3.8	308.2	308.2	309.1	0.9
D	2.80	160	586	2.6	317.0	317.0	317.7	0.7
Wolf River Lateral EA								
A[2]	0.06	40	129	6.7	299.6	299.6	300.6	1.0
B[2]	0.33	70	237	3.7	306.9	306.9	307.8	0.9
C[2]	0.67	210	1,284	0.7	326.2	326.2	326.8	0.6

[1]Miles above mouth
[2]Cross section located outside county limits

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

WOLF RIVER LATERAL E-WOLF RIVER LATERAL EA

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Wolf River Lateral F								
A	1.02	290	918	1.8	281.2	281.2	281.7	0.5
B	1.43	40	198	8.5	290.6	290.6	291.4	0.8
C	2.27	80	327	3.3	312.0	312.0	312.7	0.7

[1]Miles above confluence with Wolf River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOODWAY DATA

WOLF RIVER LATERAL F

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ. FT.)	MEAN VELOCITY (F.P.S.)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
Wolf River Lateral H								
A	1.79	610	1,987	1.4	290.3	290.3	291.1	0.8
B	2.76	60	448	6.4	302.6	302.6	303.6	1.0
C	3.36	200	874	1.6	310.0	310.0	311.0	1.0
D	4.33	30	192	4.2	328.7	328.7	328.7	0.0
Wolf River Lateral IA								
A	0.59	60	320	3.7	293.7	293.7	294.4	0.7
B	1.40	50	285	6.5	304.6	304.6	305.5	0.9
Wolf River Lateral J								
A	0.86	470	422	4.4	294.0	294.0	294.2	0.2
Wolf River Lateral K								
A	0.68	34	272	8.3	294.2	292.8[2]	293.5	0.7

[1]Miles above mouth

TABLE 2

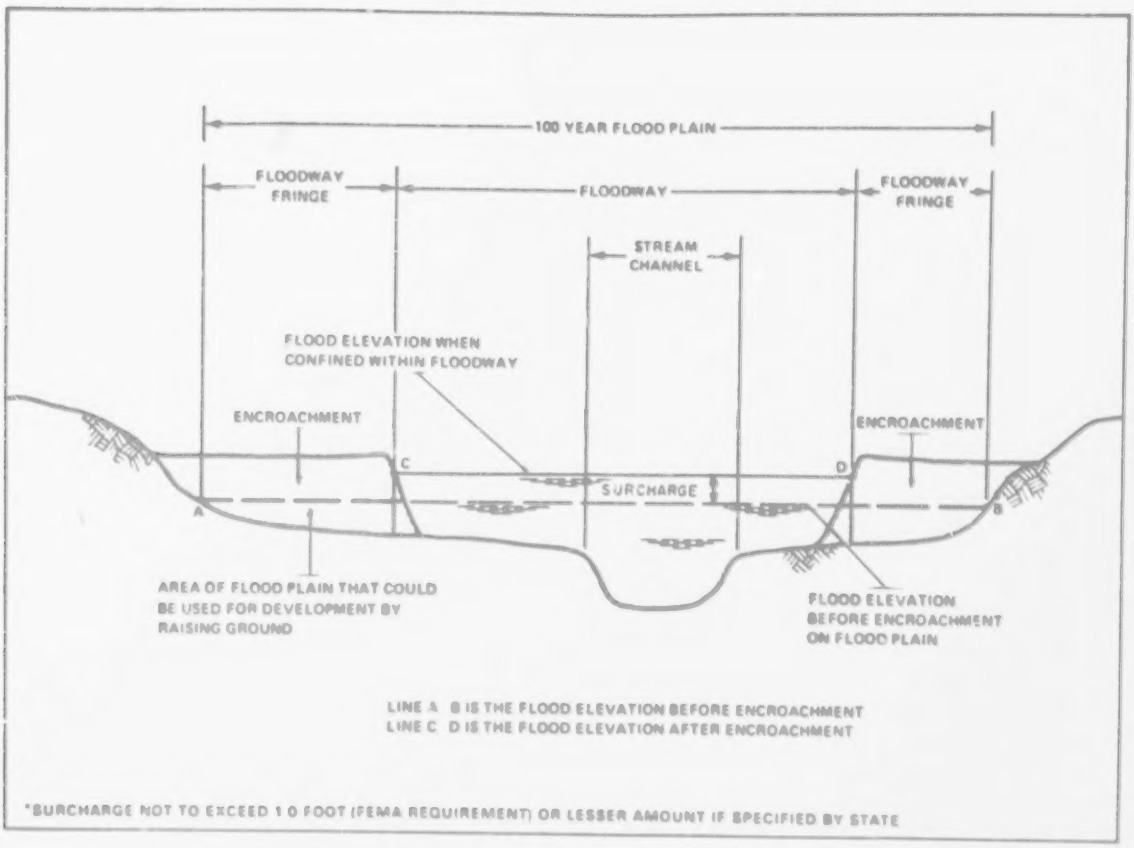
FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOODWAY DATA

WOLF RIVER LATERAL H-WOLF RIVER LATERAL IA
WOLF RIVER LATERAL J-WOLF RIVER LATERAL K


100 YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE A B IS THE FLOOD ELEVATION BEFORE ENCROACHMENT
LINE C D IS THE FLOOD ELEVATION AFTER ENCROACHMENT
*SURCHARGE NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE

FLOODWAY SCHEMATIC

Figure 2

5.0 INSURANCE APPLICATION

In order to establish actuarial insurance rates, FEMA has developed a process to transform the data from the engineering study into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors (FHFs), and flood insurance zone designations for each significant flooding source affecting Shelby County.

5.1 Reach Determinations

Reaches are defined as lengths of watercourses having relatively the same flood hazard, based on the average weighted difference in water-surface elevations between the 10- and 100-year floods. This difference does not have a variation greater than that indicated in the following table for more than 20 percent of the reach.

Average Difference Between 10- and 100-Year Floods	Variation
Less than 2 feet	0.5 foot

Reaches meeting the above criteria were required for the flooding sources of Shelby County. The locations of the reaches are shown on the Flood Profiles (Exhibit 1).

5.2 Flood Hazard Factors (FHFs)

The Flood Hazard Factor is used to correlate flood information with insurance rate tables. Correlations between property damages from floods and their assigned FHFs are used to set actuarial insurance premium rate tables based on FHFs from 005 to 200.

The FHF for a reach is the average weighted difference between the 10- and 100-year flood water-surface elevations expressed to the nearest one-half foot, and shown as a three-digit code. For example, if the difference between the water-surface elevations of the 10- and 100-year floods is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference between the 10- and 100-year flood water-surface elevations is greater than 10.0 feet, the accuracy for the FHF is to the nearest foot.

5.3 Flood Insurance Zones

After the determination of reaches and their respective FHFs, the entire unincorporated area of Shelby County was divided into zones, each having a specific flood potential or hazard. Each zone was assigned one of the following flood insurance zone designations.

Zone A:	Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods; no base flood elevations shown or FHFs determined.
Zones A1, A2, A3, A4, A5, A6, A8, & A18:	Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations shown, and zones subdivided according to FHFs.
Zone B:	Areas between the Special Flood Hazard Area and the limits of the 500-year flood, including areas of the 500-year flood plain that are protected from the 100-year flood

by dike, levee, or other water control structure; areas subject to certain types of 100-year shallow flooding where depths are less than 1.0 foot; or areas subject to 100-year flooding from sources with drainage areas less than 1 square mile. Zone B is not subdivided.

Zone C: Areas of minimal flooding.

Table 3, "Flood Insurance Zone Data," summarizes the flood elevation differences, FHFs, flood insurance zones, and base flood elevation for each flooding source studied in detail in the community.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for Shelby County is, for insurance purposes, the principal result of the Flood Insurance Study. This map (published separately) contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. This map is developed in accordance with the latest flood insurance map preparation guidelines published by FEMA.

6.0 OTHER STUDIES

This Flood Insurance Study was prepared in conjunction with the Wolf and Loosahatchie Rivers and Nonconnah Creek, Tennessee and Mississippi Feasibility Report, the Phase I General Design Memorandum on Nonconnah Creek, the Wolf River Basin Study and the Memphis Metro Area Study. The Department of Housing and Urban Development, FEMA issued Flood Hazard Boundary Maps for Shelby County (Reference 5) in August 1978, as the result of an approximate flood hazard study. That approximate study is to be superseded by the results of this detailed flood hazard study. This detailed study supports some of the approximate flood hazard areas mapped, but contradicts others.

Flood Plain Information Reports were published by the Soil Conservation Service on the Wolf River, the Loosahatchie River and Nonconnah Creek in Shelby County in 1969, 1970 and 1968 respectively. The flood elevations presented in this report differ from the Flood Plain Information Reports because of increased urbanization and channel improvements.

7.0 LOCATION OF DATA

Information concerning the pertinent data used in preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, Federal Emergency Management Agency, 1375 Peachtree Street, Suite 778, N.E., Atlanta, Georgia 30309.

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1 0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0 2% (500 YR.)			
Bear Creek							
Reach 1	0010	-2.3	-0.7	+1.4	025	A5	Varies
Reach 2	0010	-0.9	-0.4	+0.3	010	A2	Varies
Bear Creek Lateral							
Reach 1	0010	-0.9	-0.3	+0.4	010	A2	Varies
Beaver Creek							
Reach 1	0025,0055	-1.8	-0.5	+1.3	020	A4	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

BEAR CREEK-BEAR CREEK LATERAL-BEAVER CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
West Beaver Creek							
Reach 1	0025	-0.5	-0.2	+0.3	005	A1	Varies
Reach 2	0020,0025	-2.1	-0.6	+1.1	020	A4	Varies
Reach 3	0020,0025	-1.3	-0.6	+0.9	015	A3	Varies
Reach 4	0020	-0.8	-0.4	+0.5	010	A2	Varies
Reach 5	0020,0025	-1.3	-1.0	+0.8	015	A3	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

30

WEST BEAVER CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100 YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Big Creek Drainage Canal							
Reach 1	0010,0040	-2.8	-0.9	+1.0	030	A6	Varies
Reach 2	0040	-4.2	-1.0	+1.8	040	A8	Varies
Reach 3	0045	-2.8	-1.1	+1.2	030	A6	Varies
Reach 4	0015,0045	-1.6	-0.4	+0.6	015	A3	Varies
Reach 5	0015,0045	-0.9	-0.3	+0.3	010	A2	Varies
Reach 6	0015	-1.8	-0.5	+0.6	020	A4	Varies
Reach 7	0015	-3.2	-0.5	+0.8	030	A6	Varies
Big Creek Lateral A							
Reach 1	0040	-1.2	-0.6	+0.6	010	A2	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

BIG CREEK DRAINAGE CANAL-BIG CREEK LATERAL A

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Casper Creek							
Reach 1	0015,0045	-0.6	-0.2	+0.2	005	A1	Varies
Reach 2	0015	-1.1	-0.2	+0.2	010	A2	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

CASPER CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100 YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Crooked Creek Drainage Canal							
Reach 1	0015,0020, 0045,0050	-0.9	-0.3	+0.2	010	A2	Varies
Reach 2	0020	-0.5	-0.1	+0.1	005	A1	Varies
Crooked Creek Lateral A							
Reach 1	0020	-0.9	-0.2	+0.2	010	A2	Varies
Reach 2	0020	-0.6	-0.2	+0.2	005	A1	Varies
Crooked Creek Lateral B							
Reach 1	0020	-0.6	-0.2	+0.2	005	A1	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

CROOKED CREEK DRAINAGE CANAL-CROOKED CREEK LATERAL A
CROOKED CREEK LATERAL B

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Cypress Creek							
Reach 1	0050,0080, 0085	-1.2	-0.4	+0.7	010	A2	Varies
Reach 2	0085	-1.4	-0.4	+0.7	015	A3	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

CYPRESS CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Fletcher Creek							
Reach 1	0080,0100, 0105	-1.2	-0.3	+0.5	010	A2	Varies
Fletcher Creek Lateral B							
Reach 1	0100	-1.4	-0.3	+0.5	015	A3	Varies
Reach 2	0100	-0.4	-0.1	+0.2	005	A1	Varies
Reach 3	0100	-0.9	-0.3	+0.2	010	A2	Varies
Fletcher Creek Lateral BB							
Reach 1	0100	-0.9	-0.2	+0.3	010	A2	Varies
Fletcher Creek Tributary A							
Reach 1	0075,0100	-0.8	-0.1	+0.3	010	A2	Varies
Fletcher Creek Tributary C							
Reach 1	0075	-0.8	-0.3	+0.3	010	A2	Varies
Reach 2	0075	-0.5	-0.1	+0.1	005	A1	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN

(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

FLETCHER CREEK-FLETCHER CREEK LATERAL B-FLETCHER CREEK LATERAL BB-FLETCHER CREEK TRIBUTARY A- FLETCHER CREEK TRIBUTARY C

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Fletcher Creek Tributary D Reach 1	0075	-0.4	-0.2	+0.2	005	A1	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

FLETCHER CREEK TRIBUTARY D

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1 0% (100 YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0 2% (500 YR.)			
Gray's Creek Reach 1	0080,0085, 0105,0110, 0135,0140	-1.3	-0.3	+0.7	015	A3	Varies
Jakes Creek Reach 1	0010	-1.9	-0.5	+0.6	020	A4	Varies
Reach 2	0010	-1.4	-0.4	+0.5	015	A3	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

GRAY'S CREEK-JAKES CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Johns Creek							
Reach 1[4]	0160	-1.0	N/A	0.5	010	A2	Varies
Reach 2	0160	-1.0	-0.2	0.5	010	A2	Varies
Johns Creek Lateral A							
Reach 1	0160	-1.8	-0.6	5.1	020	A4	Varies
Reach 2	0160	-1.2	-0.5	0.7	010	A2	Varies
Johns Creek Lateral AA							
Reach 1	0160	-1.7	-0.4	0.4	015	A3	Varies
Reach 2	0160	-0.5	-0.1	0.2	005	A1	Varies
Johns Creek Lateral B							
Reach 1	0160	-1.0	-0.5	0.6	010	A2	Varies
Reach 2	0160	-0.5	-0.1	0.3	005	A1	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP
[4]APPROXIMATE VALUES

REVISED: 1/17/90

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

JOHNS CREEK-JOHNS CREEK LATERAL A-JOHNS CREEK LATERAL AA-JOHNS CREEK LATERAL B

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100 YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Loosahatchie River Drainage Canal							
Reach 1	0040,0045, 0070,0075	-3.1	-1.0	+1.9	030	AE	Varies
Reach 2	0045,0050, 0055,0075, 0080	-2.6	-0.9	+1.5	025	A5	Varies
Marys Creek							
Reach 1	0105,0110, 0140	-0.7	-0.3	+0.3	005	A1	Varies
Mississippi River							
Reach 1	0005,0010, 0030,0035, 0040,0060, 0065,0070	-8.8	-2.2	+6.7	090	A18	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

LOOSAHATCHIE RIVER DRAINAGE CANAL - MARYS CREEK
MISSISSIPPI RIVER

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Nonconnah Creek							
Reach 1	0130,0135, 0165	-2.0	-1.0	+3.0	020	A4	Varies
Reach 2	0165,0170	-1.0	-0.2	+0.3	010	A2	Varies
Nonconnah Creek Lateral B							
Reach 1	0170	-1.5	-0.4	+0.5	015	A3	Varies
Nonconnah Creek Lateral BA							
Reach 1	0165,0170	-1.5	-0.3	+0.5	015	A3	Varies
Nonconnah Creek Lateral J							
Reach 1	0165	-1.0	-0.5	+0.6	010	A2	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

NONCONNAH CREEK-NONCONNAH CREEK LATERAL B-
NONCONNAH CREEK LATERAL BA-NONCONNAH CREEK LATERAL J

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
North Fork Creek							
Reach 1	0010,0015	-2.5	-0.5	+0.5	025	A5	Varies
Reach 2	0010,0015	-1.0	-0.4	+0.6	010	A2	Varies
North Fork Creek Lateral A							
Reach 1	0015	-0.5	-0.5	+0.3	005	A1	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

NORTH FORK CREEK - NORTH FORK CREEK LATERAL A

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Royster Creek							
Reach 1	0010	-3.0	-1.0	+1.5	030	A6	Varies
Reach 2	0010	-1.0	-0.3	+0.5	010	A2	Varies
Ten Mile Creek							
Reach 1	0160	-1.3	-0.5	+0.7	015	A3	Varies
Reach 2	0160	-0.5	-0.2	+0.3	005	A1	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

REVISED: 8/27/86

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

ROYSTER CREEK - TEN MILE CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Wolf River Reach 1	0135,0140	-2.5	-0.8	+1.5	025	A5	Varies
Wolf River Lateral E Reach 1	0135	-0.6	-0.2	+0.2	005	A1	Varies
Wolf River Lateral EA Reach 1	0135	-0.5	-0.2	+0.2	005	A1	Varies
Wolf River Lateral F Reach 1	0135	-0.6	-0.2	+0.5	005	A1	Varies
Wolf River Lateral H Reach 1	0140,0170	-1.0	-0.3	+0.3	010	A2	Varies

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

WOLF RIVER-WOLF RIVER LATERAL E-WOLF RIVER LATERAL EA-
WOLF RIVER LATERAL F-WOLF RIVER LATERAL H

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
Wolf River Lateral I							
Reach 1	0140	-1.2	-0.2	+0.3	010	A2	Varies
Wolf River Lateral IA							
Reach 1	0140	-1.5	-0.3	+0.2	015	A3	Varies
Reach 2	0140	-0.5	-0.1	+0.1	005	A1	Varies
Wolf River Lateral J							
Reach 1	0140	-1.5	-1.4	+2.0	015	A3	Varies
Wolf River Lateral K							
Reach 1	0140	-0.7	-0.3	+0.9	005	A1	Varies
Wolf River Lateral L							
Reach 1	0170	-0.9	-0.7	+1.3	010	A2	Varies

[1] FLOOD INSURANCE RATE MAP PANEL
[2] WEIGHTED AVERAGE
[3] ROUNDED TO NEAREST FOOT-SEE MAP

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

SHELBY COUNTY, TN
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

WOLF RIVER LATERAL I-WOLF RIVER LATERAL IA-WOLF RIVER LATERAL J-
WOLF RIVER LATERAL K-WOLF RIVER LATERAL L

8.0 REFERENCES AND BIBLIOGRAPHY

1. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Computer Program, HEC-1, Flood Hydrograph Package, Davis, California, January 1973.

2. ---------, Flood Hydrograph Analysis and computation, August 31, 1959.

3. U.S. National Weather Service, Technical Paper No. 40, Rainfall Intensity Duration Frequency Curve, U.S. Government Printing Office, Washington, D.C., 1961.

4. U.S. Army Corps of Engineers, Computer Program HEC-2, Water-Surface Profiles, Davis, California, 1973.

5. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Shelby County, Unincorporated Areas, Tennessee, August 1978.

9.0 REVISIONS DESCRIPTION

This section has been added to provide information regarding significant revisions made since the original Flood Insurance Study was printed. Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood hazard data located at the County Engineer's Office, Shelby County Administration Building, Memphis, Tennessee.

9.1 First Revision (Revised September 27, 1985)

a. Acknowledgments

The hydraulic analyses for this Revisions Description were obtained from William Bush & Associates, Inc., Gregory-Grace and Associates, Incorporated, and the Shelby County government. The Federal Emergency Management Agency reviewed and accepted these data for purposes of this revision.

b. Scope

Based on updated hydraulic data, Fletcher Creek was revised from Whitten Road to approximately 5,500 feet upstream to reflect the effects of the improved Whitten Road bridge and modified channel data. Also, new topographic mapping (Reference 6) was used to delineate flooding along Fletcher Creek. The hydraulic analysis for Fletcher Creek Tributary A was revised from U.S. Highway 64 to approximately 920 feet upstream of Appling Road to incorporate a new bridge at U.S. Highway 64 and existing channel and overbank conditions. As a result of the revised data for Fletcher Creek Tributary A, the overflow effects on Fletcher Creek Tributary C were revised from the mouth to approximately 400 feet upstream of the mouth. Johns Creek was revised from Winchester Road to just downstream of Tennessee Yards to incorporate the effects of Winchester Road bridge and channel improvements. This revision to Johns Creek resulted in a change in the profile for Johns Creek Lateral A from the mouth to about 950 feet upstream of a Burlington Northern railroad spur. Based on revised channel data, Ten Mile Creek was revised from 4.68 miles above the mouth to just downstream of East Shelby Drive.

c. Hydrologic and Hydraulic Analyses

As a result of improved bridge data, channel improvement projects, and natural channel erosion, the hydraulic analysis for Fletcher Creek was revised. The new information was taken from a report prepared by William Bush & Associates, Inc. (Reference 7). The hydraulic analysis was done using the U.S. Army Corps of Engineers HEC-2 computer program (Reference 8). The starting water-surface elevations used in the original hydraulic analysis were considered valid and were not revised. Cross sections used for the reanalysis were generated by a recent field survey. Roughness coefficients were

assigned on the basis of field inspection of the channel and floodplain characteristics. The coefficients ranged from 0.015 to 0.035 for the channel and from 0.030 to 0.10 for the overbank areas.

The Fletcher Creek Tributary A hydraulic analysis was revised to reflect new bridge data and currently existing channel and overbank conditions. The data were taken from a report by Gregory-Grace and Associates, Incorporated, for the City of Bartlett, Tennessee (Reference 9). Additional cross-section data were obtained by field survey to supplement cross sections in the original HEC-2 hydraulic analysis. Original roughness coefficients and starting water-surface elevations were considered valid and were not revised.

A portion of Johns Creek was revised to reflect bridge and channel improvements outlined in a report by William Bush & Associates, Inc. (Reference 10). Roughness coefficients for the channel were revised based on field inspection of the area. The coefficients for the channel in the revised area ranged from 0.015 to 0.065. Cross-section data were revised based on field data taken in 1983. The original starting water-surface elevations used in this HEC-2 hydraulic analysis were considered valid and were not revised. The above-mentioned report included computations for the 100-year profile only. The 10-year flood profile was calculated using approximate methods, the 500-year flood profile remained the same as in the original study, and no profile was calculated for the 50-year flood.

Ten Mile Creek was revised to incorporate new bridge data and new cross-section data. Roughness coefficients were revised in the channel to show channel improvements. The coefficients ranged from 0.012 to 0.055 for the channel. The original starting water-surface elevations used in this HEC-2 hydraulic analysis were considered valid and were not revised.

The base flood elevations, flood insurance zone designations, and regulatory floodway for these waterways have been revised as described in this revision to the original Flood Insurance Study and are shown on the Revised Flood Insurance Rate Map, Flood Boundary and Floodway Map, Floodway Data tables, Flood Insurance Zone Data table, and Flood Profiles. This revised information supersedes those portions of the original Flood Insurance Study for Shelby County, Unincorporated Areas, Tennessee.

d. Floodways

Floodway computations for Fletcher Creek, Fletcher Creek Tributary A, Johns Creek, and Ten Mile Creek were revised as a result of new hydraulic computations. The floodways were computed on the basis of equal conveyance reduction from each side of the floodplain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was revised and are presented in Table 2, Floodway Data.

e. Other Studies

A Flood Insurance Study for the City of Memphis, Shelby County, Tennessee (Reference 11) is currently in progress. The City of Memphis Flood Insurance Study and this report were done in conjunction with one another and match exactly.

f. References and Bibliography

6. Shelby County, Tennessee, Topographic Mapping, Scale 1:500, Contour Interval 5 feet, Block No. 7, 1964.

7. William Bush & Associates, Inc., Report on Investigations of the Base Flood Elevations in the Vicinity of Hillshire Subdivision, Section B, Shelby County, Tennessee, June 1982.

8. U.S. Army Corps of Engineers, Computer Program HEC-2, Water-Surface Profiles, Davis, California, 1979.

9. Gregory-Grace and Associates, Incorporated, Flood Study of Industrial Park Site, Memphis, Tennessee, 1983.

10. William Bush & Associates, Inc., Report on Investigations of Base Flood Elevations on Johns Creek from Winchester Road to Raines Road, Memphis, Tennessee, 1984.

11. Federal Emergency Management Agency, Flood Insurance study, City of Memphis, Shelby County, Tennessee, in progress.

9.2 Second Revision (Revised January 17, 1990)

a. Acknowledgments

The hydraulic analyses for this Revisions Description were performed by Reaves & Sweeney, Incorporated. The Federal Emergency Management Agency reviewed and accepted these data for purposes of this revision.

b. Scope

The base flood elevations, Special Flood Hazard Area, zone designations, and floodway were revised on Johns Creek Lateral A and Johns Creek Lateral AA to show the effects of excavation and fill in the channel and overbank areas near the confluence of the two streams. Johns Creek Lateral A was revised from approximately 600 feet upstream of its mouth to the Burlington Northern railroad crossing just downstream of the confluence of Johns Creek Lateral AA. Johns Creek Lateral AA was revised from its mouth to approximately 6,000 feet upstream of Crumpler Road. Approximate Zone A flooding was added along Ten Mile Creek, upstream of Getwell Road; along Johns Creek, approximately 1,800 feet upstream of Malone Road; and along Johns Creek Lateral B, upstream of Holmes Road.

c. Hydrologic and Hydraulic Analyses

Hydrologic data for Johns Creek Lateral A and Johns Creek Lateral AA were obtained from the original Flood Insurance Study and used without modification.

The revised hydraulic analyses for Johns Creek Lateral A and Johns Creek Lateral AA were developed using the HEC-2 step-backwater computer program (Reference 12). For Johns Creek Lateral A, Manning's "n" values range from 0.065 to 0.080 for the channel and are 0.1 for the overbank areas. For Johns Creek Lateral AA, the value is 0.1 for both the channel and overbank areas. Additional cross-section data were obtained by field survey to supplement the cross sections in the original HEC-2 analyses. Those new cross sections were incorporated to more clearly define the Special Flood Hazard Areas and floodways and to better model effective flow areas and transitional effects caused by bridges. As a result of the revised hydraulic analyses, base flood elevations for Johns Creek Lateral A decreased by as much as 7.0 feet and increased by as much as 1.0 foot. Base flood elevations for Johns Creek Lateral AA decreased by as much as 5.0 feet. The revised profiles for Johns Creek Lateral A and Johns Creek Lateral AA are shown on Flood Profile Panels 32P-35P.

d. Floodways

Floodway computations for Johns Creek Lateral A and Johns Creek Lateral AA were revised as a result of the revised hydraulic analyses performed by Reaves & Sweeney, Incorporated. The floodways were computed on the basis of equal conveyance reduction from each side of the floodplain. The results of those computations were tabulated at selected cross sections for each stream segment for which a floodway was revised and are presented in Table 2, Floodway Data.

e. Other Studies

The scope of this revision is entirely within the unincorporated areas of Shelby County; therefore, this revision does not affect any contiguous communities.

f. References and Bibliography

12. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Computer Program 723-X6-L202A, Davis, California, April 1984.